

Module code	Module title	Brief description	Semester	ECTS
Compulsory Module: General Economic and IT Competence				
1WI-PROG-10	Programming	The module provides the knowledge and skills required to use algorithms to overcome problems and deliver user-friendly and efficient programs. As well as covering the basics of programming, the module focuses in particular on object-oriented programming.	1	6
1WI-UGU-10	The Company in a Global Context	Students are given an overview of the basics of Business Management. They have been familiarised with the basic categories of modern management theory, and the subject is rounded off with a look at the importance of the organisation in the delegation of responsibilities and the integration of marketing into business decisions. Students are also given a basic knowledge of economics, which equips them to analyse and evaluate business questions from an economic perspective.	1	7
1WI-WIMA-10	Business Mathematics	This module provides students with the mathematical tools for the successful study of business information systems. The combination of business administration and information technology provided by this course requires knowledge of the following areas of mathematics in particular: analysis, linear algebra, financial mathematics, descriptive statistics, probability theory, inductive statistics, linear optimisation, optimisation models, reliability theory and theory of operation. The material is presented primarily by means of problems and illustrative real-world examples.	1	6
1WI-DB-20	Databases	This module provides knowledge and skills on the modelling, application and administration of relational database management systems. Students undertake practical exercises enabling them to consolidate their knowledge and test their skills on real database management systems.	2	6
1WI-REWE-20	Internal and External Accounting	The module provides an introduction to internal and external accounting, focusing on the basic principles and techniques of bookkeeping, cost accounting, cost centre accounting, cost unit accounting and contribution margin accounting. Building on this basis, the module then covers the purpose and underlying concepts of external accounting and its basic arithmetic aspects. Starting from the economic purpose of accounting, it explores the legal framework and specific forms of national and international accounting.	2	7
1WI-TGI-20	Theoretical Principles of Information Systems	This module focuses on key topics from logic, algebra, algorithms, data structures, complexity, automata theory and formal languages.	2	5
1WI-SE-30	Software Engineering	The module provides students with an understanding of how modern software systems are developed, with a focus on the architecture of large commercial information systems.	3	7

1WI-RAKS-30	Computer Architecture / Communication Systems	The first part of this module deals with the organisation and interaction of the core hardware components of a computer and the operating systems required to manage and distribute hardware resources (both from the perspective of differing paradigms). The second part covers communication systems, providing an introduction to the physical and organisational principles of information transfer in computer networks and the demonstrating such transfer taking the OSI layer model as an example.	3	6
1WI-VWL-30	Economics	The focus is on acquiring a basic understanding of key economic questions and issues, and developing the ability to recognise and evaluate them, and to draw appropriate conclusions.	3	6
1WI-MAWI-30	Materials Management	In addition to providing an introduction to industrial management, this module focuses on the principles of materials management, including the analytical instruments for materials management, procurement planning and procurement scheduling.	3	5
1WI-FIMA-40	Financial Management	This module looks at investment and financing as core areas of financial management. It also considers the key features and systems of specific types of commercial taxation (income tax, corporation tax, business tax, sales tax) and procedural law under the German Fiscal Code.	4	5

1WI-RECHT-45	Law	<p>This module provides an introduction to the foundations and general principles of private law and to legal methods. Case studies are used to help students understand legal approaches to private autonomy (declarations of intent, transactions, contracts), the form and content of contractual and non-contractual obligations and the rules on incomplete performance. Students also learn about the basic principles of property law.</p> <p>The module also enables students to acquire knowledge of commercial law for businesspeople and their assistants, and the regulations governing companies, the commercial register and commercial trading. Students also gain an overview of the various legal forms for companies. The aim is to familiarise them with the differences between partnerships and corporations as regards their foundation, management, representation and liabilities.</p> <p>The module uses case studies to communicate the principles of individual and collective employment law, familiarising students with the legal requirements for establishing employment contracts, and their content and termination. Students also learn how to deal with collective agreements and about the mechanisms for industrial action, and gain an insight into co-determination rights.</p> <p>In addition, they are given basic background on the legal framework relating to information and communications technology and internet law, with a particular emphasis on competition, copyright and contract law.</p>	4 and 5	8
1WI-COMA-56	Corporate Management	<p>Students are taught the key concepts and methods of corporate management against the background of globalisation and internationalisation. In the interests of providing comprehensive insights, the focus is on discussion of interrelationships between systems. Theory-led discussion of the various levels of corporate management (normative, strategic and operational) is extended by means of innovative management and control methods drawn from practice. The students are also familiarised with the basic general principles of human resources management and staff management in particular. Case studies are used to supplement and consolidate discussion.</p> <p>The TOPSIM General Management II simulation game is challenging, generic and topical. It covers all areas of business from manufacturing to purchasing, human resources planning, research and development, marketing and sales, as well as product lifecycles, staff qualifications, productivity, rationalisation, environmental issues, share prices, enterprise value and ratings.</p> <p>Extensive reporting (internal accounting with detailed cost accounting, external accounting, exhaustive market research reports) provides the participants with the information they need to make decisions. Another business game with a similar scope may be used as an alternative to the TOPSIM General Management II game.</p>	5 and 6	8

1WI-WIBAS-60	Knowledge-Based Systems	<p>The specialised area of artificial intelligence is a key precondition for intelligence and the intelligent behaviour of a system, and calls for an internal model of the external world and the capacity to draw reasonable, appropriate and rational conclusions from the available knowledge.</p> <p>This module explores the approaches of artificial intelligence, and provides students with an understanding of the content and methods of knowledge-based systems, the theoretical principles of knowledge representation, development methods and deployment options. Students undertake exercises using selected software to test and consolidate their knowledge.</p>	6	5
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Compulsory Module: Specialised Business Information Systems				
1WI-EWI-10	Introduction to Business Information Systems	The module introduces students to business information systems, covering the basics of information technology and business information technology and explaining how key hardware and software components function in companies. This is followed by an introduction to organising your studies and later to organising your academic work. The self-management and time-management skills gained will give students the tools to plan, coordinate and analyse their own study and work styles.	1	5
1WI-MDWI-20	Business Information Systems Methods	This module teaches the fundamental competencies relating to business information technology, ranging from requirements capture in systems analysis to system design, and also explores the tasks and duties of IT project managers. Unified Modelling Language (UML) is used to promote better understanding of object-oriented programming.	2	6
1WI-ITM-40	IT Management	This module explores techniques and methods for using companies' IT organisation to optimise their business process design and operate the required IT. In this context, it also provides an introduction to business process analysis and optimisation, and techniques and methods for IT service management and related areas. Students apply and consolidate what they have learned by means of an exercise using the ARIS business process management tool.	4	5
1WI-ITSK-60	IT Service and Concepts	This module teaches the latest integrated service and information management structure concepts and the associated technologies and ideas. The opportunities and risks presented by electronic business and the increasing digitalisation of information are covered in detail.	6	5

Compulsory Module: Personal, Social and Linguistic Competence				
1WI-EBIS-45	English Business Information Systems	<p>This English language module addresses the needs of dual-bachelor students, and provides a general introduction to economics and computer science in a company environment. It takes a systematic approach to the development of key language skills for efficient communication in this field, placing great emphasis on helping students boost their lexical range (terminology).</p> <p>As the second stage of a two-level, modular business and specialised English course, this section encourages students to hone their communication skills and draw on their own experience at work. Authentic stimuli and activities provide constant opportunities for discussion, offer an intercultural perspective and maximise learner involvement.</p>	4 and 5	9
1WI-MTITP-56	Management Techniques in the IT Project	<p>Students undertake group work in a real-world simulation, to give them experience of how an IT system is designed and implemented. They apply the latest systems analysis/systems design and project management methods to a specific practical task on the computer, using a current programming language. Students are given the knowledge required to develop complex IT solutions with up-to-date technologies and tools.</p> <p>Students develop their interpersonal competencies: through project work and the instruction they receive in management techniques, they develop their teamworking and management skills, and their ability to moderate and resolve conflict.</p>	5 and 6	9

Required optional modules				
1WI-SFGW-40	Healthcare Structures and Financing	Students are introduced to the principal structures and interrelationships in healthcare. They gain an understanding of the complexity of the medical sector and learn to evaluate the roles of those involved. They become familiar with key rules and nomenclatures. Knowledge of language, structure and processes of healthcare is essential for anyone wanting to work with business information systems in this field. Students are also given an introduction to health financing.	4	5
1WI-VBWEG-40	Public Administration and E-Government	This module provides an overview of the fundamentals of public administration and e-government.	4	5
1WI-LOQM-40	Logistics and Quality Management	This module deals with logistics and quality management. In addition to the basics, it covers the different types of logistics and their relationship with quality management. Students consolidate their understanding by playing a business game and exploring a case study.	4	5
1WI-BK-40	Office Communication	In this module, students acquire and develop skills in the areas of office communication and standard software.	4	5
1WI-QMNSG-50	Quality Management and New Health Structures	Students are familiarised with new structures and approaches to collaborative working in the healthcare sector and the demands these place on medical information systems, and are given an overview of quality management in the sector.	5	5
1WI-ERP-50	ERP Systems	This module provides basic and advanced knowledge of ERP systems. As well as a functional overview, it covers the structure and functioning of ERP systems. The topic concludes with an overview of the market and current trends. Students apply and consolidate what they have learned by means of an exercise using an appropriate ERP system.	5	5
1WI-ERPV-50	ERP Systems in Administration	The Enterprise Resource Planning in Administration module explains how ERP systems can be used to support business processes within public administrations. It provides detailed information on logistical and financial processes and how they can be incorporated into ERP systems. Additional content includes the structure and architecture of ERP systems, trends and different integration models. Students apply and consolidate what they have learned by means of an exercise using an appropriate ERP system.	5	5
1WI-VSE-60	Specialised Software Engineering	This module explores current practical issues in software engineering, developing programming techniques and methods by means of case studies.	6	5
1WI-MSS-60	Management Support Systems	The Management Support Systems module presents students with tasks within idealised and/or hypothetical situations, requiring them to apply the knowledge they gained in the basic Business Administration and Information Systems courses. They prove their ability to work in teams and apply basic data retention and processing technologies to deliver company administrative and management functions.	6	5

1WI-MIM-60	Medical Information Management	The module focuses on the demands placed on medical information systems as a result of the need to support medical services, the principles of medical documentation, interfaces that have to be maintained and the introduction of new telematics technologies.	6	5
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Practical Modules				
1WI-PMUGU-10	The Placement Company in a Global Context	In this practical module, students study their placement company and its basic processes and activities, and gain an overview of the communications channels and information systems it uses. They are directly involved in a real team, prompting them to develop new social skills and reinforce the social skills they already have. They consolidate the specialist competencies they acquired in the theoretical modules, and apply these in the placement presentation they prepare.	1	6
1WI-PMAP-20	Practical Module: Application of Solutions for Work and Problems	In this practical module, students become familiar with the basic sequences in selected functions. They apply and practise solutions and problem-solving techniques, including the associated IT expanding their competencies, and their methodical and social skills. In their first supervised projects, they practise business information systems methods and complete a work experience record, which is evaluated during an in-class session.	2	6
1WI-PMEK-30	Practical Module: Expansion of Competences, and Methodical and Social Skills	In this practical module, the students become familiar with additional basic processes for selected functions, and thus expand their personal, methodical and social skills. They develop their capacity for independent academic work by preparing a second work experience record, which is evaluated during an in-class session.	3	6
1WI-PMAV-40	Practical Module: Taking Independent Responsibility	In this practical module, students take on increasing independent responsibility for undertaking business tasks. Aiming to reinforce their independence, further develop their competences and acquire decision-making skills, students expand their specialist knowledge, their ability to think analytically, critically and constructively and to analyse and evaluate specific practical processes, and their ability to implement theoretical knowledge in practice and vice versa. They select and apply problem-solving and project management techniques.	4	6
1WI-PMEA-50	Practical Module: Independent Working	In this practical module, students tackle business tasks independently and further consolidate their competence in relation to project management methods. They acquire sales and conflict resolution skills through attendance of trade fairs and participation in customer negotiations.	5	6
1WI-BAWI-60	Bachelor's Dissertation	In the Bachelor's Dissertation module, students demonstrate their ability to use the practical and theoretical knowledge they have already gained and recognised academic methods to work independently on a specified business information systems problem to a specified deadline, and also to critically evaluate and further develop their work and to communicate the results in a presentation.	6	9